

## ABSTRACT

A method for screening therapeutic agents for disuse muscular atrophy is provided that includes the steps of interacting a selected protein with a polyubiquitin chain in the presence of a candidate therapeutic agent, and determining the effect of the candidate on the binding strength between the protein and the polyubiquitin chain. The effect may be observed by color development on a substrate when the steps are carried out by way of an enzyme-linked immunosorbent assay, or by direct observation via NMR spectroscopy, X-ray crystal analysis, electron microscopy or surface plasmon resonance.